

XIV.—Notes on the Birds observed during Three Visits to Kamchatka in 1896 and 1897. By G. E. H. BARRETT-HAMILTON, F.Z.S.

DURING the course of my two missions to the Fur-Seal Islands of the North Pacific, in the years 1896 and 1897, it was on three occasions my good fortune to visit the mainland of the great Kamchatkan Peninsula. These visits were, unfortunately, all too brief, and consisted merely of two calls at Petropavlovsk, in H.M.S. 'Spartan' from the morning of the 14th to the evening of the 17th July 1896, in H.M.S. 'Linnet' from the morning of the 27th to 9 A.M. on the 31st of August 1897 (for coaling and provisioning purposes), and a short stay from about noon on the 21st to 6 A.M. on the 24th August 1897, in H.M.S. 'Linnet,' in the neighbourhood of the almost unknown island of Karaginski, off the north-eastern coast. Nevertheless I was able to observe about 56 species of interesting birds*, and to bring home a collection of 69 skins† (representing 44 species), some of which are of special interest, either from their novelty, as in the case of the Nutcracker, to which I have given the name *Nucifraga kamchatkensis*, or because they add to our knowledge of the distribution or life-history of little-known species. In fact the small collection of skins made on the shore of Ukinsk Bay adds a new locality to the rather meagre list of places from which specimens of Kamchatkan birds are known to us; the locality is, moreover, noteworthy for its propinquity to the interesting Anadyr and Chukchi regions, the avifauna of which is of special interest.

Although we are largely indebted to the labours of Russian naturalists, such as Steller, Vossnessenski, Taczanowski, von Kittlitz, and Dybowski, for our knowledge of the Kamchatkan avifauna, their papers are scattered through a number of not easily procurable foreign periodicals, and it is

* Out of a total of 270 ornithological specimens procured during the course of my wanderings.

† In all representatives of 56 genera and 64 species were seen or obtained either by members of my party or by purchase from natives.

Dr. Leonhard Stejneger* who has produced the latest and most complete account of the birds of Kamchatka as a whole. His memoir is, I believe, the only publication of the kind in the English language. It is therefore to his 'Birds of Kamchatka' that I have referred for information or for the elucidation of any doubtful questions, and I have also found it convenient (with some exceptions) to follow his system of nomenclature, although I fear it will not commend itself to all naturalists of the Old World.

When Dr. Stejneger wrote his work, he had records of the occurrence of 175 species or subspecies of birds on the mainland of Kamchatka. Practically none of these are occasional visitants, so that that number may be taken as representing with fair accuracy the true avifauna of the country. The total is little affected by the few additions which I was able to make to it, since, of these, two, viz. *Mareca americana* and *Heteractitis incanus*, are American species. They are already known, it is true, from the western side of Bering Sea, the former from a single specimen, the latter as a regular summer visitor to, and possible breeder on, the Commander Islands; but it is likely that they are only occasional or accidental visitors to the Asiatic mainland. A third, *Accentor montanellus*, seems to be an addition to the group of those Palearctic summer birds which, although migrating annually north-eastward to the western and probably reaching even the eastern shores of Bering Strait, do not habitually occur in Kamchatka, for my bird was obtained in a quite natural locality on the island of Karaginski, on the very north-eastern boundary of the peninsula. The fourth, *Oedemia carbo*, is a bird previously known from the Japanese area: it is a pity that my single specimen (for which I am indebted to Mr. Jacobleff, of Petropavlovsk) is undated. The fifth, *Cephus snowi*, may represent an annual summer visitant, if, as has been suggested by Dr. Stejneger†, it be found that this, the Kuril-

* "Results of Ornithological Explorations in the Commander Islands and in Kamtschatka," being Bull. No. 29 of the U. S. Nat. Mus. (1885).

† "The Birds of the Kuril Islands," Proc. U.S. Nat. Mus. no. 1144, 1898, p. 272.

Island form, includes Southern Kamchatka in the area of its breeding-grounds. The sixth, *Nucifraga kamchatkensis*, is merely the differentiation locally of a bird already well known to be (in one form or another) Kamchatkan; while as to a possible seventh, viz. *Larus canus*, I am uncertain whether this species be really an addition to the Kamchatkan list. Kamchatkan specimens have been usually referred to the seemingly almost identical *L. kamchatkensis*.

The composition of the Kamchatkan avifauna is well shown by the following table, which I take from Dr. Stejneger. A peculiar feature is the large proportion (over 56 per cent.) of swimming and wading birds. Of his 175 species

39 are <i>Circumpolar</i> ,	or about 22·3 per cent.
37 „ <i>Palearctic</i> ,	„ 21·1 „
28 „ <i>Pacific</i>	„ 16 „
8 „ <i>American</i> ,	„ 4·6 „
9 „ <i>Siberian</i> ,	„ 5·1 „
54 „ <i>East Asiatic</i> or peculiar*,	„ 30·9 „

Including the Nutcracker, only 11 species or subspecies are peculiar to Kamchatka. All these (except *Haliaëtus hypoleucus* Ridgway, the status of which is doubtful) are “representative” forms of species which are of considerable variability, and possess corresponding “representative conspecies or subspecies in the different provinces of the Palearctic region.” The nature of the modification undergone by these peculiar forms is of great interest. To quote Dr. Stejneger—“In every instance it consists in an increase of the white colour as compared with the nearest allied forms. In fact, *all the peculiarly Kamtschatkan birds possess a greater amount of white than any of their allies, wherever these may reside.* So extreme is this tendency towards whiteness that one species, *Astur candidissimus*, has become entirely white, while another, *Parus kamtschatkensis*, is nearly so.” The increase of the white colour is not in the nature of a bleaching or fading of the darker colours, but a simple replacement of them by pure white. Parts of the body

* In this category are included forms which do not ordinarily occur west of the river Yenisei.

which in allied forms are already white have this colour "still purer and more dazzling in the Kamtschatkan forms," while "the other colours seem to be purer, and, in many instances, at least, to be more intense also." The colour which seems to suffer the most reduction is black, but that is only as regards intensity.

Arguing from the facts that the peculiar Kamchatkan forms are considerably whiter than those of any other part of Siberia, that the climate of Kamchatka is less severe than that of Siberia generally, and that the white forms are not Arctic, being found so far south as 53° north latitude, Dr. Stejneger believes that the "theory of climatic conditions producing the geographical subspecies, races, or whatever they may be styled, does not hold good, at least as far as the increase of the white colour at the cost of the others, especially of black, is concerned."

The facts, as observed in connection with the peculiar Kamchatkan birds, do not, he thinks, bear out the conclusions deduced from observations made "long ago, as far back as Gloger's earliest days," that since "the Siberian ornithology generally showed a tendency towards an increase of the white colour," and "a similar tendency seemed to obtain in forms living nearer the Arctic," consequently "the white colour was due to the increased cold."

There are so many, as it seems, clear instances of the parallel tendency of the mammals and birds of a whole region or district to vary in a particular direction, either under the influence of Natural Selection or of the direct stimulus of the weather and environment, but, in any case, to suit the particular climatic conditions to which they are exposed, that I should be loth to think that Dr. Stejneger is right here, and I feel bound to search for some other explanation of so striking a case of parallel variation—some explanation which shall be compatible with the idea of climatic influence. It is important to remember that such phenomena as those which Dr. Stejneger describes can only be said to owe their existence to the influence of climate in so far as such influence does not conflict with or run counter

to that of the environment generally. The phenomena are not, in fact, the product of a single influencing factor, but of a combination of, probably highly complicated, influences, and the working of any particular one of which can only be positively identified when it acts with a force which greatly exceeds that of all, or of the majority, of the remainder. We have much evidence that dryness or moisture, absence of sunshine, and dull skies, together with purely local conditions, each have their influence on animal coloration, no less than direct differences in degrees of heat and cold, so that I would not like to refuse to climatic influences their due in the guidance of the evolution of the peculiar Kamchatkan birds until all other explanations have been found wanting.

The peculiar Kamchatkan birds are—*Urogallus parvirostris kamtschaticus*, *Astur candidissimus*, *Haliaëtus hypoleucus*, *Dryobates purus*, *D. immaculatus*, *Picoides albidior*, *Pica camtschatica*, *Nucifraga kamchatkensis*, *Parus kamtschaticus*, and *Sitta albifrons*.

Unfortunately we know very little about these peculiar species. Of several of them even Dr. Stejneger had seen no specimen. It is significant that one of those with which we are most acquainted, viz. the Magpie, is not only characterized by its whiteness, but is the largest form of Magpie known to Dr. Stejneger (being larger even than the Central Asiatic *Pica leuconotos* Brehm), so that, apart from its coloration, its size reminds us of the representative northern forms of some of our own common birds, such as the Redpolls, Bullfinches, Wheatears, and Lapland Buntings, and seems certainly indicative of severity of climate. One feature seems to be common to all: they are birds in which there is no conspicuous seasonal change of colour, so that the plumage suitable for the colder seasons of the year must be worn throughout the summer, or not at all.

Lastly, these ten birds are nearly all sylvan forms, and may be included among the more sedentary species resident in Kamchatka throughout the year and unlikely to face the passage of the surrounding oceans. It may be, then, that

the seas which on all sides except the north hem in their practically insular home have curtailed and impeded even the slight winter-movements southward which their co-species of the broad regions of Siberia accomplish unhindered. Thus confined and forced to occupy the same ground throughout the year, it is possible that even in Kamchatka they may have to endure a climate which, taken on the whole and not regarded at any particular season of the year, may be actually more severe than that of any other Siberian region inhabited by their co-species. On the other hand, it may be that, when our knowledge of local forms is more extensive, we may find that there remain, after all, to be found in some hitherto unexplored part of Siberia, representatives of these species which are whiter than those of Kamchatka. A case in point would appear to be my new Nutcracker, which, although whiter than *N. caryocatactes* of Europe, is not so white as the Central Asian *N. multipunctata*.

Dr. Stejneger discusses at some length the migration-routes of birds found in Kamchatka and in the regions north of that country. Little though we yet know of the avifauna of these remote regions, that little is sufficient to indicate that the migration-route of certain Kamchatkan species does not lie directly southward, as might at first sight have been expected, through the Kuril and Japanese Islands, but south-westwards towards Central Asia. This adherence to a well-defined south-westerly migrational route seems to explain the total absence from the Kamchatkan Peninsula of so many of the Asiatic summer birds of the regions bordering on Bering Strait. The trend of these migrational routes is held by Dr. Stejneger to mark in the main the tracts by which the ancestors of the species affected reached by annual extensions of their range their present northern summer-quarters. One of the most interesting features of the Kamchatkan avifauna is the total absence therefrom of many common and widespread genera for which the country would appear eminently suitable. An ornithologist cannot be long in the country before the absence of *Ardeidæ* of every sort from the salmon-streams, as well as of *Columbidæ* from

the woods, strikes him forcibly as a fact which needs some explanation. This astonishment is increased by a glance at the long lists of absentees tabled by Dr. Stejneger. At the mouth of the Amoor river (in latitudes which overlap those of Kamchatka) occur representatives of 40 or 45 genera, some of them so familiar, as *Fulica*, *Ardea*, *Tetrao*, *Columba*, *Milvus*, *Alcedo*, *Upupa*, *Iynx*, *Garrulus*, *Fringilla* (*spinus* *), *Passer*, *Certhia*, *Accentor* †, and *Regulus*, yet all these widely-distributed genera are absent from Kamchatka. Some of these genera, as well as others, such as *Botaurus*, *Turtur*, *Milvus*, *Colæus*, and *Cinclus*, occur commonly in Northern Japan and on the western shores of the Okhotsk Sea, in latitudes north of the Uda river, yet they have not reached Kamchatka. Others, such as *Vanellus*, *Rallus*, *Coturnix*, *Circus*, *Caprimulgus*, *Sturnus*, *Cotile*, *Troglodytes* ‡, and *Pratincola*, occur in Northern Japan without reaching Kamchatka; yet a glance at the list of birds found in the peninsula shows at once that it is not the severity of climate that excludes most of the above genera.

Dr. Stejneger finds an explanation in the fact that "the climatological and physical conditions of the part connecting it [the Kamchatkan Peninsula] with the continent are such as to make it a true island, zoologically speaking." The flat country (wrongly marked as mountainous on some maps) which lies just north of Kamchatka is so low that a very slight submergence would sink it beneath the waves, while there is much evidence of a recent upheaval of the whole region, including the Commander Islands, and to the latter part of this sentence I can myself bear witness. To such an island the Kuril chain, barren at least in its northern links, would not form a very enticing series of stepping-stones, and it is not surprising that no very regular use of these islands

* I thought I saw this bird at Tareinski Harbour.

† The occurrence of *A. montanellus* at Karaginski Island, on the very north-eastern boundary of Kamchatka, rather adds to than deducts from the peculiarity of its distribution.

‡ Occurs, however, on the Commander Islands, at a distance of only about 97 miles from Cape Kamchatka, the nearest point of the Kamchatkan coast.

seems to have been made by birds. The absence of so many generally-distributed Circumpolar and Palearctic birds leads Dr. Stejneger to suppose that the peninsula has been for long isolated, and that its colonization has been both accidental and recent, a supposition which he does not think invalidated by the development into distinct forms of so many birds, since their "specialization is chiefly only an intensification of the general tendency of the birds inhabiting the whole region of which Kamtschatka only forms a province," while their isolation is absolute, so that no assumption of a very long period seems to be needed in explanation.

Summing up his remarks, Dr. Stejneger concludes that "the peninsula forms a very well-circumscribed ornithogeographical province, remarkable not only for a number of peculiarly modified forms, but also for a surprising absence of many of the most characteristic forms of the northern Palearctic and Circumpolar ornithis."

A full account of my own experiences in Kamchatka has already been published in other Journals*, so that I think it will be sufficient if, in the present instance, I give an account of the birds met with, and refrain from all but the briefest allusions to the country and its scenery. It is with very real pleasure that I record my great indebtedness to Capt. Winsloe, of H.M.S. 'Spartan,' Capt. Sparkes, of H.M.S. 'Linnet,' and their officers, to whom I owe all my opportunities of collecting, as well as many of my specimens †.

Not a few interesting birds were observed on our voyage up the coast to Petropavlovsk, on July 14th, 1896, of which two species at least were new to me on this journey, viz. Richardson's Skua and the Grey Phalarope. The latter was reported early in the morning by the officer of the watch, who was much puzzled by the sight of an unknown

* See the Royal Geographical Journal, Sept. 1898, pp. 280-299 (with illustrations and a map), and the Scottish Geographical Magazine, May 1899, pp. 225-256 (with illustrations and a map).

† The type of *Nucifraga kamchatkensis* was shot by Dr. Bishop, of H.M.S. 'Linnet.'

sea-bird with a red breast. Later in the day we saw flocks of these fairy-like little birds, all dressed in the red livery of summer, and engaged either in flying over the sea with the sharp, quick wing-beats of a Sandpiper or in resting on the water with the cork-like buoyancy of a Petrel. I did not see among them any of the Red-necked species, *Phalaropus hyperboreus* (Linn.), so common on Bering Island, not 200 miles away, and which was abundant at sea off Avacha Bay on our return journey on August 31st, 1897. Both these Phalaropes are surprisingly tame and confiding in their habits while on shore, and at Tareinski Harbour on the 16th a bluejacket brought to me alive a specimen of the grey species, which he had secured by knocking it over with a stone. It was a male in the red-breasted plumage, which is not nearly so bright as that of the female. These were the only Grey Phalaropes which I met with, but the abundance of the species as seen off the coast makes one marvel that Dr. Stejneger, in his account of the birds of the country, could give no instance of its occurrence in the peninsula other than the record of a flock seen by himself near Bering Island on August 21, 1882*, and the statement "that Merck observed this species, 'circa Camtschateam,' according to Pallas" †.

The other species seen were mostly those with which I was already familiar, having met with them either off the coast of Yezo or in the Okhotsk Sea. Such were the Albatrosses, *Diomedea albatrus* Pall., of which we saw several, including an immature bird in the dark plumage inside Avacha Bay, near Petropavlovsk.

Fulmars, *Fulmarus glacialis glupischa* Stejn., in the grey phase prevalent in the western Pacific, were numerous, as they are at that season of the year in almost all parts of Bering's Sea and of the Pacific north of about lat. 45° N. which I have visited. Although this species comes quite close in to the shore both at the Commander Islands and at Robben Reef, I did not see it inside the mouth of Avacha Bay.

* *Op. cit.* p. 140.

† *Op. cit.* p. 317.

Guillemots, *Uria lomvia arra* (Pall.), were everywhere to be seen, both in the open sea and in Avacha Bay, where they follow the fish into the inner recesses of the harbour. Many of them were gorged with food, and unable to rise from the water as the ship approached them.

With the Guillemots were the comical-looking Black Puffins, *Lunda cirrhata* (Pall.), in great abundance, a bird totally unrepresented by any corresponding species in the Atlantic. Like the Guillemots, they were so gorged with food as to be unable to rise from the sea at our approach. Yet they were in very great terror at the appearance of the ship, and either tried to escape by diving or flapped with might and main along the top of the water. Their bright red legs, carried with the feet close together behind them, gave them almost the appearance of having a red rump. Like the Guillemots, these birds, in their pursuit of fish, follow up the ramifications of Avacha Bay to quite a distance from the open sea.

Once I thought I saw some Black Ducks, perhaps *Ædemia deglandi* Bp., or *Æ. carbo* (Pallas), but I did not get a good enough view of them to make my observation certain, and I may well have been mistaken.

The next species which we fell in with was a Black Shag, *Phalacrocorax pelagicus* Pall., with black, forward-pointed crest and bare yellow face. Later a Cormorant, *P. bicristatus* Pall., flew by us, wearing the white egg-like spots of the breeding-season on its flanks. A few more Shags and Cormorants were observed later in the day, but they did not seem to be numerous about Avacha Bay, and I only saw a few, and did not obtain a specimen during my stay there. Strange to say, I once saw a single individual of each of these quite different species flying together as if mated.

At about the same time as we saw the Cormorants we came on a dark-mantled Gull, *Larus schistisagus* Stejn. Inside Avacha Bay this species was numerous, but I brought home only one specimen, a female, shot in Tareinski Harbour, which weighed 4 lbs. The sharp boundary between the range of this and *Larus glaucescens* Naum. is curious, the former

being very numerous at Petropavlovsk, though it is unknown at Bering's Island, where the latter is equally abundant.

One or two Black Guillemots, *Cepphus columba* (Pall.) or *C. snowi* Stejn., were also met with, but this species is one of the least numerous in individuals of all the sea-birds of Bering Sea. The white-winged Guillemots of this sea and of the Kuril Islands were believed to be identical, until in 1897 Dr. Stejneger pointed out that there are two forms, and suggested the name *snowi* as suitable for that of the Kuril Islands. Both are distinct from *C. carbo* Pall., the wholly black form which frequents the Japanese waters.

Petropavlovsk is a mere village, with log-houses nestling close to the picturesque shores of Avacha Bay. Under the eaves of some of the log-houses we saw on this occasion the nests of the Brown-bellied Swallow, *Hirundo tytleri* Jerdon, but when we returned on August 27th, 1897, these birds had already left for the south. During our first visit, however, we spent very little time at Petropavlovsk itself, but retired from comparative civilization to the wilds of Tareinski Harbour, on the opposite side of Avacha Bay. Here the thick woods which grow right down to the edge of the loch, though to all appearance a regular botanical paradise, seemed to be rather destitute of bird-life; but the very denseness of the luxuriant undergrowth prevented me from penetrating to any great distance from the shore, or from seeing or securing specimens of the few small Passerine birds whose notes could be heard in the bushes. Such were a yellow Bunting-like bird, probably *Hypocentor aureolus* (Pall.), seen several times at Tareinski in 1896, but not obtained; a pair of very shy Siberian Bullfinches, *Pyrrhula pyrrhula kamtschatica* (Taczan.); and a pair of golden-winged Finches, possibly the Siskin, a bird, however, which does not seem to have been recorded from Kamchatka, although it occurs at the mouth of the Amoor.

One afternoon at Tareinski I constantly heard the song of a Bunting in the thick undergrowth near the edge of the loch, but could not see the songster. The bird sang in a manner very like that of our common Yellow-Hammer,

but omitted the terminal portion of the song of that bird. Occasionally a small party of the Kamchatkan Titmouse were to be seen searching the trees for food, just like our own common species. A Magpie, *Pica kantschatica* Stejn., and a Carrion-Crow, *Corvus corone leucillanti* (Less.), completed the list of woodland species. About the streams or at the water-edge the Grey and Pied Wagtails, *Motacilla melanope*, and probably *M. lugens*, were often to be seen, while a Sky-Lark, †*Alauda blakistoni*, was obtained in the open country near Petropavlovsk.

Wading birds were not numerous at Tareinski. On July 17th I shot a young Tattler, *Heteractitis incanus*, a bird which uttered no note, and at about the same time one of our party saw some Whimbrels or Curlews, but on the whole there was quite a remarkable absence of wading birds. On our autumn visit to Petropavlovsk in August 1897 we added to the list of species obtained, securing examples of that cosmopolitan species the Turnstone, *Arenaria interpres*, and a Whimbrel, *Numenius phaeopus variegatus* (Scop.).

Ducks were very numerous, especially the conspicuously white-winged Goosander, or perhaps the Merganser, for no specimen was obtained, but, according to Dr. Stejneger, both species occur. Flocks of Wigeon, another species with white-barred wings, were also seen; but, strange to say, the only specimen which we shot, a female weighing $1\frac{1}{2}$ lbs., proved to be an example of the American Wigeon, a stranger to Asia, and, I believe, the first known specimen from the western shores of Bering Sea.

In 1897 we obtained specimens of a Golden-eye, the common Wild Duck, and Teal; while Mr. Jacobleff, an employée of the Russian Fur-Seal Company at Petropavlovsk, has since sent me specimens of the Smew and of the Harlequin Duck. In fact, bird-life was far more plentiful on the water than on shore, and, besides the Black Puffins, and the Guillemots, Common and Black, which fished even in the innermost recesses of the harbour, we had here *Larus ridibundus* and *L. canus*, so well known in England, and the Pacific Kittiwake, *Rissa tridactyla pollicaris* Stejn. Skuas,

too, were occasionally seen, the more frequent species being *Stercorarius crepidatus*. On the 17th, as we were leaving Avacha Bay, I thought I saw the long-tailed Buffon's Skua, but it is hard to identify the two species on the wing.

Terns were numerous, parties of old and young birds fishing together, especially in August 1897, over the small lagoon behind Petropavlovsk. They were very tame, and it was a pleasure to see their white forms and to hear their peevish cries, as with down-pointed beak they eagerly scanned the water, and, occasionally seeing a fish, dropped headlong downward like a Gannet. Specimens which we brought home have been identified as *Sterna longipennis* Nordm., by Mr. Howard Saunders.

The most conspicuous water-birds of Avacha Bay were the Divers, of perhaps two species: two obtained for me by Mr. Jacobleff proved to be the red-throated species, *Colymbus septentrionalis* Gm., but it was among the birds of prey that the most interesting species were to be observed. In Avacha Bay it was hardly ever possible to be out of sight of a pair or more of Ospreys, *Pandion haliaëtus*. The size of these birds, combined with their rather strongly contrasted upper and under sides, made them very conspicuous. A pair seen at Tareinski seemed to have a nest in a locality which the mosquitoes prevented me from visiting. Although very active and frequently on the wing, the Ospreys did not seem to be destructive to other birds, for the Gulls paid no attention to them, although one or other of the pair was nearly always circling around or hovering at a good height above the water. The fishing of these birds was by no means always rewarded by success. Often one would drop meteor-like for a distance as if intent on securing its prey, but the bird usually stopped, as if disappointed, before it reached the lake's surface, and then resumed its hovering. On July 16th I saw one of these large birds carrying something in its claws, so that they could not have been always so unsuccessful as I at first imagined; but it was not until August 1897 that I actually observed one descend to the water from a height, seize a fish in its claws, and,

shaking the moisture from its pinions, bear its booty aloft.

Very conspicuous were the great Pallas's Sea-Eagles, *Thalassaëtus pelagicus*, of which a pair or two at least frequent the larger trees about Avacha Bay. Their powerful lemon-yellow bills and white shoulders make them easily recognizable at a distance. Once I saw an Osprey strike at an Eagle in the air, and the clumsily-flying king of birds seemed quite unable to retaliate while on the wing.

We saw no Owls among the woods, but Mr. Jacobleff procured me a specimen of Tengmalm's Owl, *Surnia ulula*, which seems to be identical with examples of the same species found in Europe.

In 1897 we stayed more in the immediate neighbourhood of Petropavlovsk. Among the hills behind the town birds were not numerous, and the few Warblers which were shot were unfortunately not preserved. The shooting-parties were not at all successful, those who went in pursuit of Duck being especially unfortunate. Others who took their way inland a bit secured a few of the fine Kamchatkan Capercaillie; and Willow-Grouse were also obtained on several occasions within walking-distance of the town.

But good sport was not to be obtained at Petropavlovsk in the summer months. For reindeer and bighorn a journey of two or three days into the mountains was said to be necessary, while the bears were inaccessible in the thick undergrowth. As a general rule, in Kamchatka a sportsman must not expect to get much return for his trouble, except in spring or autumn. In summer the mosquitoes are rampant, and the thick undergrowth serves the double purpose of effectually concealing the game and of obstructing their pursuer, while in winter the snow lies so thickly that the bears at all events are safely asleep beneath its sheltering mantle.

Of other birds Crows were common, and three Magpies were seen at the town on August 31st. Among the scrub and woods, Nutcrackers were seen on more than one occasion, flying with the peculiar soft, Crow-like flight of the

family. Dr. Bishop, of H.M.S. 'Linnet,' most fortunately secured one, and on examination it has turned out to be a most interesting form, differing, as might have been expected, from all the hitherto known forms of Nutcracker.

The only other bird noted was a Sedge-Warbler, seen once in a marsh near the branch of Avacha Bay known as Rakova Harbour, and probably belonging to *Acrocephalus ochotensis* (Midd.), which Dr. Stejneger found to be "rather numerous in the vicinity of Petropavlovsk."

On August 21st, 1897, we ran up Ukinsk Bay, on our way to Karaga Harbour. Leaving the Guillemots, Black Puffins, and Fulmars of Bering Sea at the entrance to the inlet, we found inside it birds of several species, mainly Gulls and a few Terns, numerous. Red-necked Phalaropes were very plentiful, as elsewhere in Kamchatkan waters, Ducks of more than one kind were abundant, and even the high northern latitude seemed to be no bar to the presence of the Albatross, *Diomedea albatrus* Pall., a fine male of which we put up from his lazy slumbers on the water.

The shortness of our stay on shore at Karaga Harbour prevented us from making a large collection of birds. We found that, besides the birds already mentioned, a Crow—probably the same as that met with at Petropavlovsk—was fairly common, but no specimen was obtained. Close to the village flocks of large and very long-billed Curlews, *Numenius cyanopus* Vieill., found rich feeding on the berries or at the edge of a small lagoon. Two species of Gulls, *Larus ridibundus* and *L. canus*, were obtained, and the shooting party reported that they had found the breeding-place of one species in a marsh up the river. Of small birds, a Yellow and a Pied Wagtail, *Budytes flava* and *Motacilla ocularis*, were also plentiful, and two or three other small species were seen. Wading birds of several kinds were also obtained, *e. g.* the Turnstone, the Mongolian Plover, a Stint, and two species of Tattlers. But perhaps the most conspicuous bird of all here, as at Petropavlovsk, was a large Diver, probably the red-throated species, of which the long uncouth

body, flying with back slightly bent downward and rapidly beating pinions, was hardly ever out of sight.

On August 22nd we steamed across to False Bay, an inlet of the western side of Karaginski Island facing the mainland. Here another small collection of birds was made, to which the sportsmen of the party contributed such birds as the Scaup and the fine King Eider. Some white Geese were seen, but these, as well as some large black Ducks reported from Karaga Harbour, were not secured, and, besides the Ducks, the mainstay of the bag, were a few couples of Willow-Grouse.

In the dense thickets of scrubby pine which clothe the island we were surprised to find small birds of several species rather plentiful, but the fact that we had come nearly to the end of our stock of cartridges did not improve our chances of procuring specimens in such a country. With a twelve-bore shot-gun and sporting cartridges charged with large shot our only weapon, and the quarry a set of little birds sitting at provokingly close quarters in thick bushes, the result of our efforts was often more disastrous to the poor birds than advantageous to our collection, and on more than one occasion we were strongly tempted to follow the example of our friends the natives—to lie down and eat berries. Still, it was near the end of our cruise, and no other cartridges were available, so we had to do our best, and succeeded in obtaining more or less mutilated examples of *Accentor montanellus* (Pall.), a young Lapland Bunting, a Pipit, *Anthus gustavi* Swinh., a Northern Chiffchaff, *Phylloscopus borealis* (Blas.), and a Kamchatkan Nightingale, *Erithacus calliope* (Pall.). The locality forms an extension of the known range of all these species, and the *Accentor* is an addition to the Kamchatkan avifauna, it not having been previously obtained at any locality nearer than Amoor Land (*vide* Brit. Mus. Cat. Birds, vol. vii. p. 654, where its habitat is given as from the Yenesei to the Amoor river). Richardson's Skua was seen or obtained both at Karaginski Island and at Karaga; in other respects the birds were identical. We were disappointed not to meet

with any Eagles on the island, as it had been suggested that the rare *Haliaëtus hypoleucus* of Ridgway might occur there. But the western side of the island is quite unsuitable for Eagles, and if they occur at all it must be about the cliffs of the Bering's Sea coast.

We left Karaginski Island on our way south to Japan at 6 A.M. on August 24th, and reached Petropavlovsk at about noon on the 27th. The journey was uneventful, both as regards ornithology and otherwise, the only incident of interest to a naturalist being the visit of a Turnstone* to the ship at 6.30 P.M. on the 28th, at a time when we must have been somewhere in the neighbourhood (and probably north) of Cape Kronotski.

I append a list of the species brought home (69 specimens), most of which are now in the collection of the British Museum of Natural History. For 17 of the skins I am indebted to the kindness of Mr. Jacobleff, of Petropavlovsk. I am also under an obligation to Dr. R. Bowdler Sharpe and Mr. W. R. Ogilvie Grant, of the Bird Department of the British Museum of Natural History, who were good enough to identify for me the more difficult species. Mr. Howard Saunders has also examined the Tern, Gulls, and Skuas.

Wherever possible I have tried to give a description of the colours of the legs, feet, claws, iris, and bill of the specimens as noted down after they had been shot. I have also added the tints of the inside of the bill and of the fauces, the latter of which, so far as my experience goes, are comparatively seldom alluded to or noticed by naturalists, although they are often exceedingly beautiful, and sometimes, as in the case of the Guillemots, of quite unexpected tints. To give correct names to all the varied shades and hues of colouring is, I fear, beyond my powers, and the difficulties of describing specimens without a brush and paint are almost insurmountable. To select one instance alone, nothing but an elaborate

* Another Turnstone came on board the ship on August 31st, soon after we had left Avacha Bay for Japan, and on the same day a party of Curlews flew over, flying high in the same direction as the ship.

and coloured drawing can give any true idea of the lavish mixture of various colours exhibited in summer by the bill of *Lunda cirrhata*; but I do not here repeat a description of the soft parts of this particular species, although I made a sketch of the bill, because they have already been given in detail by Dr. Stejneger. Realizing therefore the impossibility of attaining to exactness, I have thought it well not to amend the nomenclature of my original rough notes as regards the colours of the soft parts of the specimens, since after all the effect of the most elaborate scheme invented for the purpose cannot convey to the imagination one half the glories of some of these as seen in their original freshness. It must be borne in mind, however, that in many cases the colour of the same part varies in different individuals of the same species, even when obtained on the same date, so that when I have used different names for the same part of different individuals of the same species, I may often be quite correct in doing so.

COLYMBUS LUMME (Gunnerius).

Nos. 1-2. Petropavlovsk, summer plumage (*Mr. Jacobleff*).

BRACHYRHAMPHUS PERDIX (Pallas).

No. 3. Petropavlovsk (*Mr. Jacobleff*). This species was not found in Kamchatka by Dr. Stejneger: it is, however, mentioned by Taczanowski.

CEPPHUS SNOWI Stejneger.

No. 4. In winter plumage, Petropavlovsk (*Mr. Jacobleff*).

No. 5. Juv. Described by Dr. Stejneger from the Kuril Islands (*Auk*, xiv. p. 201, 1897).

LUNDA CIRRHATA Pallas.

No. 6. ♀, Petropavlovsk, autumn of 1897 (*Mr. Jacobleff*).

LARUS SCHISTISAGUS Stejneger.

No. 7. ♀ adult, Avacha Bay, July 16, 1896. Weight 4 lbs. Colour of bill yellow, with a bright red spot at the angle of the lower mandible on each side, and the tips of both mandibles white; of iris lighter yellow than bill; of

eyelids pink; of legs and feet light flesh; of claws horn with the tips lighter.

Dr. Stejneger describes the colour of the feet as "pinkish flesh-colour," and remarks that this character at once distinguishes *L. schistisagus* from *L. affinis*, which is said to have the feet yellow, and also from *L. marinus*, in which the flesh-colour is very pale and rather greyish. Very little seems to be known about the distribution of this species, nor did my trip to Ukinsk Bay add to our knowledge on that point, for I have no notes of having met with any large Gulls in that neighbourhood. It was described from Avacha Bay, in Southern Kamchatka, and only occurs as an occasional straggler on the neighbouring Commander Islands, where it is represented by the totally different *L. glaucescens* Naum. For the intermediate localities we had no certain record until Dr. Stejneger found it to be, next to the Kittiwake, the commonest breeding Gull of the Kurils*. It is therefore of interest to record that I saw numerous Black-backed Gulls, many in a light immature plumage, on Robben Island, Sakhalin, when I visited it on July 11, 1896, and that, although I did not obtain a specimen there, I distinctly noted that the colour of the legs of these Gulls was pink, so that in all probability they were *L. schistisagus*, since the colour of the legs of this species should be far more conspicuous and noticeable than are those of *L. marinus*. In Ukinsk Bay no adult large Gulls were seen. A young bird of the year, of the size and general appearance of the young of *L. glaucescens*, was observed near Karaga, but could not be identified on the wing.

LARUS CANUS Linn.

No. 8. ♀, Petropavlovsk, July 17, 1896. Colour of bill yellow, except the light horn tip of the upper mandible; of angle of gape and eye-ring vermilion; of iris light yellow; of legs and feet greenish yellow, the soles of the feet lighter.

* ["*Hab.* Bering Sea, Okhotsk Sea, and North Pacific down to Northern Japan in winter. Headquarters appear to be about the Kuril Islands.' Saunders, Cat. B. Brit. Mus. xxv. p. 260 (1896).—EDD.]

No. 9. Sex not noted, Karaga Village, August 21, 1897. Colour of bill, both inside and outside, yellow; of gape, eye-ring, and soft parts of interior of mouth crimson; of legs light yellow; of claws a peculiar tint of yellowish horn. The descriptions of the colours having been taken from the note made by me at the time, I have not checked the nomenclature, and it will be noted that the parts of the 1896 bird called vermilion are in 1897 called crimson. There is probably, however, some variation in the tint of red of these parts, for in Stejneger's description of *L. kamtschatchensis* (Bp.) the eye-ring is called vermilion in one and dull reddish in another specimen.

No. 10. Juv., Karaga Village, August 21, 1897. Colour of bill a mixture of horn- and flesh-colour; of iris hazel; of legs and feet pale flesh; of claws horn.

It is rather refreshing to meet a species like this and the next, which, although occurring at the opposite ends of the Palearctic Region, cannot be divided into subspecies. Dr. Stejneger had only one specimen of *L. canus* from Kamchatkan regions, and that was from Bering Island, and not from the mainland, to which the bird would therefore appear to be new. But I suspect that Dr. Stejneger would call my specimen *L. kamtschatchensis* (Bp.), a form which is not accepted by our British authorities, and which, if distinguishable, must be remarkably close to *L. canus*. *L. kamtschatchensis* is said to be not common in Kamchatka, where, however, it probably breeds. My Karaga specimens extend the range of the bird (under whichever name it is preferred to designate it). The breeding-place of Gulls found on the Karaga river was probably one belonging to this species, and the specimen no. 9 must have been bred in North Kamchatka. Among my birds from the Commander Islands is a straggler of *L. canus* in first plumage (according to Mr. Howard Saunders), obtained on Copper Island, August 20th, 1896.

LARUS RIDIBUNDUS Linn.

Nos. 11-12. Two ♂, in breeding-plumage, Petropavlovsk,

July 17, 1896. Colour of bill, eyelids, and interior of mouth crimson; of iris brown; of legs and feet crimson brick; of claws brown.

No. 13. ♀, Karaga Village, August 21, 1897. Colour of bill, eyelids, and interior of mouth dull red (duller than the legs and feet); of iris brown; of legs and feet blood-red, exactly the colour of the bird's own blood.

The bill and feet seem to fade rapidly in the autumn. Dr. Stejneger notes an adult female obtained at Petropavlovsk, on September 18, 1883, in which the bill was pale salmon-red, with the tip in front of the nostrils dark brownish, and the feet and webs similarly coloured. On the other hand, an adult female obtained in the same locality on September 28th, 1883, had the bill and feet vermilion, the former somewhat dusky towards the tip.

STERNA CAMTSCHATIKA Pallas. [S. LONGIPENNIS Nordm.]

No. 14. ♂ nearly adult?, Petropavlovsk, August 28, 1897. Colour of bill dark horn, tinged with red, the red appearing especially at the base of the lower mandible; of interior of mouth light red; of legs deep red; of claws dark.

No. 15. ♂ juv., Petropavlovsk, autumn of 1897 (*Mr. Jacobleff*).

No. 16. ♀ juv., same date and locality. Colour of bill redder and lighter than in the older specimen (no. 14); of legs yellowish red.

Stejneger cites this species as not very numerous, although he found it both in May and autumn at the mouths of the rivers falling into Avacha Bay.

There is some question as to the colour of the feet of this Tern. Mr. Howard Saunders, who (*Brit. Mus. Cat.* vol. xxv. p. 68) says that they are "blackish," had evidently only dried skins before him, for Dr. Stejneger gives the colour of the legs of two adult females as "blackish red" and "dark reddish brown," a description which agrees so closely with my own that Dr. Stejneger would appear rather in the light of a hair-splitter when, in a review of my friend Mr. A. H. Evans's 'Birds,' he corrects the author for

having used my information, and quoted my authority for the redness of the legs. Dr. Stejneger has not given us the colour of the legs of immature birds, but it would seem from my note that the legs become deeper red as the bird grows older, until, in the adult, the red is so deep that they dry to black in preserved specimens.

STERCORARIUS PARASITICUS. [S. CREPIDATUS.]

No. 17. ♂ * (!) of light form, Karaginski Island, August 22, 1897. Colour of soft parts black, except the fleshy base of the bill.

HÆMATOPUS OSCULANS Swinhoe.

No. 18. Petropavlovsk (*Mr. Jacobleff*).

ARENARIA INTERPRES (Linn.). [STREPSILAS INTERPRES.]

No. 19. Sexed ♂, Petropavlovsk, August 28, 1897.

Nos. 20-21. ♂ (!) and one unsexed, Karaginski Island, August 22 or 23, 1897. Colour of legs yellowish red.

No. 22. ♀, Karaga Village, August 21, 1897. Colour of bill horn; of iris and claws dark; of legs salmon-yellow.

ÆGIALITIS MONGOLA (Pallas).

No. 23. ♀ (!), Karaga Village, August 21, 1897. Colour of bill black; iris and claws dark; legs and feet greenish.

ACTODROMAS RUFICOLLIS (Pallas).

Nos. 24-29. 2 ♂ (!), 4 ♀ (!), Karaga Village, August 21, 1897. Colour of bill and legs black.

No. 30. ♀ (!), Karaginski Island, August 22 or 23, 1897. Colour of bill and legs black.

TEREKIA CINEREA (Güldenst.).

Nos. 31-32. ♂ (!) and one unsexed, Karaginski Island, August 22 or 23, 1897. Colour of legs yellow. Dr. Stejneger's only specimen of this bird was obtained on Bering Island.

* The sign (!) is added to specimens which I skinned and sexed myself. It throws no doubt on the sexing of specimens not thus marked, which were skinned and sexed by various trustworthy local persons.

HETERACTITIS INCANUS (Gmel.).

No. 33. ♂ juv., Petropavlovsk, July 17, 1896. Colour of bill greenish horn, with the base dull yellow; iris brown; legs yellow.

This bird seems to be an addition to the list of species found on the Kamchatkan mainland, for, although known to Dr. Stejneger from the Commander Islands, it is included by him with ten other species in the list of "Birds, American or peculiar to the Commander Islands, which do not occur in Kantschatka."

HETERACTITIS BREVIPES (Vieill.).

No. 34. ♂ (!), Karaga Village, August 21, 1897. Colour of bill greenish horn; of iris dark; of legs light yellow.

NUMENIUS CYANOPUS (Vieill.).

No. 35. Unsexed, Karaga Village, August 21, 1897. Colour of bill bluish horn, with the basal portion of the underside of the lower mandible fleshy; of iris brown; of legs and feet slate; of claws horn-brown.

This species was not obtained in Kamchatka by Dr. Stejneger, but it is known from the peninsula through the work of previous naturalists.

NUMENIUS PHEOPUS VARIEGATUS (Scopoli).

No. 36. ♂, Petropavlovsk, about August 28, 1897.

PHALAROPUS LOBATUS (Linn.).

No. 37. Unsexed, Karaga Village, August 21, 1897. Colour of bill and iris dark; of legs and feet bluish horn.

No. 38. Unsexed, Karaginski Island, August 22 or 23, 1897.

CRYMOPHILUS FULICARIUS (Linn.).

No. 39. ♂ in breeding-plumage, Petropavlovsk, July 16, 1896. Colour of bill at base orange, at tip horn; of iris dark; of legs, feet, and claws horn, the legs washed here and there with yellowish.

I have already noted the abundance of these birds as seen

on July 14th, 1896, and the almost total absence of previous records of its occurrence in or about Kamchatka. It is one of those birds whose distribution is peculiar; for instance, it is not known to breed on the Commander Islands.

DAFILA ACUTA (Linn.).

Nos. 40-41. Two unsexed, Karaginski Island, August 23, 1897.

MARECA AMERICANA (Gmelin).

No. 42. ♀, Avacha Bay, July 16, 1896. Weight $1\frac{1}{2}$ lbs. Colour of bill, legs, and feet nearly black; of iris nut-brown.

As stated above, I believe this is the first known specimen of this species from the mainland of Asia. One other is recorded by Dr. Stejneger as having been picked up dead on Bering Island on May 1st, 1883.

FULIGULA MARILA (Linn.).

No. 43. ♀, Ukinsk Bay, August 21, 1897. Colour of bill bluish horn; of interior of mouth fleshy; of iris yellow.

This species presents us with another instance of the preservation of an identical form throughout a very wide range. From Japan southward and also in America it is represented by other subspecies.

CLANGULA GLAUCION (Linn.) or *C. ISLANDICA* (Gm.).

No. 44. ♀, Petropavlovsk, August 28, 1897. Colour of bill externally horn; of interior of mouth and bill flesh; of iris yellow; of legs and feet brownish yellow, with the webs, claws, soles of the feet, and back of the legs dark.

It appears to be extremely difficult, if not impossible, to distinguish between the females of *C. clangula* and *C. islandica* in certain stages of plumage; but since the latter species is not given by Dr. Stejneger as occurring in Kamchatka, my Petropavlovsk specimen, although doubtful, is probably the former.

HISTRIONICUS HISTRIONICUS (Linn.). [*COSMONETTA HISTRIONICA.*]

No. 45. ♀, Petropavlovsk, autumn of 1897 (*Mr. Jacobleff*).

HARELDA HYEMALIS (Linn.).

No. 46. ♀ juv., Petropavlovsk (*Mr. Jacobleff*).

No. 47. ♂, ditto.

CEDEMIA CARBO (Pallas).

No. 48. ♂ adult, Petropavlovsk (*Mr. Jacobleff*). This species is, I think, an addition to the Kamchatka list.

HENICONETTA STELLERI (Pallas).

No. 49. ♂ adult, also two very young birds in an interesting stage of plumage, in which the speculum is just beginning to show.

SOMATERIA SPECTABILIS (Linn.).

Nos. 50-51. ♂ and pull., Karagiinski Island, August 23, 1897. Colour (of ♂) of bill dull yellow of many shades and complicated arrangement, the exact tints varying in different places; of interior of mouth pale flesh; of iris light yellow; of legs and feet yellow, except the webs and the soles of the feet, which were dark; of claws horn.

Dr. Stejneger does not seem to have obtained a specimen of this species in Kamchatka, but it is mentioned by Steller, Pallas, and Taczanowski.

MERGUS ALBELLUS Linn.

No. 52. ♀, Petropavlovsk, autumn of 1897 (*Mr. Jacobleff*).

UROGALLUS PARVIROSTRIS KAMTSCHATIKUS (Kittlitz).

Nos. 53-54. 2 ♂, both in the moult, Petropavlovsk, August 14, 1897.

LAGOPUS RUPESTRIS (Gm.).

No. 55. ♂ (!), Karagiinski Island, about August 20, 1897.

No. 56. One unsexed, Karagiinski Island, August 23, 1897.

“The Ptarmigan found in the mountains of the peninsula has not been satisfactorily determined. It would be no surprise if it should prove to be distinct. It is pretty safe to say, however, that it is not typical *mutus*.” So wrote Dr. Stejneger (*op. cit.* p. 319); but Mr. Ogilvie Grant, who kindly examined my birds for me, does not believe in the

validity of the various species and subspecies of Ptarmigan into which some naturalists have divided the birds found in the Aleutian and the Commander Islands, and so it appears here as plain *L. rupestris*.

LAGOPUS LAGOPUS (Linn.).

No. 57. ♀, Karaga Village, August 21, 1897; also obtained at Petropavlovsk, but not preserved.

SURNIA ULULA (Linn.).

No. 58. One unsexed, Petropavlovsk, autumn of 1897 (*Mr. Jacobleff*).

This is another Kamchatkan species, no specimen of which had been seen by Dr. Stejneger, and which he suggested might be subspecifically distinct. My single specimen does not bear out this suggestion, and cannot be separated from ordinary examples.

ALAUDA BLAKISTONI Stejneger.

No. 59. ♀, Petropavlovsk, about August 28, 1897. Colour of bill light horn, darker on the upper surface of the upper mandible; of interior of mouth light yellow; of legs and feet fleshy, the soles light yellow; of claws horn.

NUCIFRAGA KAMCHATKENSIS Barrett-Hamilton (Bull. B. O. C. vol. vii. 1898, p. xlvi).

No. 60. One unsexed, Petropavlovsk, Kamchatka, about August 28, 1897.

Dr. Stejneger never had the series of Nutcrackers necessary to show the distinctness of the Kamchatkan bird. I was therefore pleased to be able to compare my single specimen with those in the British Museum, when it at once became evident that it belonged to a form not represented in that collection. The Kamchatkan bird is darker than *N. caryocatactes*, and has the remiges tipped or margined with white. From *N. multipunctata*, which it resembles in the size of the large white spots, it differs in the lesser area of the white tips of the rectrices.

A new species not only to the Kamchatkan, but to the

East Siberian avifauna ; this does not, however, increase the number of Kamchatkan birds, since the Nutcracker was already well known to occur in the peninsula.

ACCENTOR MONTANELLUS (Pallas).

No. 61. One unsexed, Karaginski Island, August 23, 1897.

This species should probably be added to the list of Palæarctic summer visitors (see Stejneger, *op. cit.* p. 349) which, although known to occur on the Chukchi Peninsula, have not yet been obtained in Kamchatka, and most of which, probably, do not occur there regularly. They are *Ægialitis hiaticula* (?), *Eudromias morinellus*, *Pelidna ferruginea*, *Eury-norhynchus pygmaeus*, *Motacilla ocularis*, *Turdus iliacus* (?), *T. naumanni*, and *Saxicola ananthe*, eight in all. The occurrence of a Central-Asiatic bird in the region north of Kamchatka is not, however, very surprising, when it is considered that nearly one-half of the birds of Northern Alaska are identical with those of North-eastern Siberia*.

CALCARIUS LAPPONICUS (Linn.).

No. 62. One juv. (unsexed), Karaginski Island, August 22 or 23, 1897.

Although the Lapland Bunting is numerous in summer on the Commander Islands, especially on Bering Island, Dr. Stejneger writes (*op. cit.* p. 251):—"About its occurrence in Kamtschatka I can only say that I met a single, exceedingly shy individual in the graveyard of Petropaulski during the first half of October."

ANTHUS GUSTAVI Swinhoe.

No. 63. ♂ (!) juv., Karaginski Island, August 23, 1897. Colour of bill horn, the lower mandible fleshy at its base ; of gape yellow ; of interior of mouth light yellow ; of legs, feet, and claws fleshy horn.

BUDYTES FLAVA (Midd.).

No. 64. ♂ (!) juv., Karaga Village, August 22, 1897. Colour of bill, legs, and feet horn ; of soles of feet yellow.

* See Prof. Newton's 'Dictionary of Birds,' p. 332.

No. 65. ♀ (!), Karaginski Island, August 22 or 23, 1897.

The Kamchatkan bird is referred by Dr. Stejneger to the subspecies *B. f. leucostriatus* Homey., but he puts forward the suggestion that when its migration is thoroughly known it will be found to be an isolated form having no connection with the Alaskan *Budytes*.

MOTACILLA MELANOPE Pallas.

No. 66. ♂, Avacha Bay, July 17, 1896. Colour of bill and iris dark; of legs and feet fleshy horn; of claws horn.

MOTACILLA OCULARIS Swinhoe.

No. 67. Unsexed, Karaginski Island, August 22 or 23, 1897. Colour of bill dark horn, the base of the lower mandible lighter; of gape light yellow; of legs, feet, and claws black.

PHYLLOSCOPUS BOREALIS (Blasius).

No. 68. Unsexed, Karaginski Island, August 22 or 23, 1897. Colour of bill dark horn; of legs and feet light horn.

ERITHACUS CALLIOPE (Pall.).

No. 69. Unsexed, Karaginski Island, August 23, 1897. Colour of bill and legs horn.

XV.—On *Estrelata mollis* (Gould) and the Allied Species living at Madeira and the Cape Verde Islands. By T. SALVADORI, C.M.Z.S.

IN the 'Annals and Magazine of Natural History,' vol. xiii. p. 363 (1844), Gould described a *Procellaria mollis*, which he had found very common in the Southern Seas between the 20th and 40th deg. S. lat. In the same year, G. R. Gray (Gen. B. iii. p. 648) expressed an opinion that the bird described by Gould was the same as *Procellaria melanopus* Gm.